

Saulsbery, MAJ Lisa L.
Schneider, MAJ Maria D.
Slone, SGM Lonnie C.
Walmsley, CPT Andrew D.

Williams, CPT O'Neal A.
Woodbury, CPT Janelle C.
Woodbury, CPT Harvey L.

Congratulations to the following AABC 05-701 graduates:

Burnette, Erica N.
Cockrill, MAJ Jack G.
Duffy, Cathal
Foote, Jennifer A.
Hayward, CPT Preston J.
Hogan, Celeste M.
Kidd, Wanda L.
Lundy, SFC Glenn A.
Mansfield, CPT Bryon L.

Mickelson, Timothy A.
Petitjean, MSG Constance D.
Porter, Robert C.
Readus, Marsha H.
Vega, MAJ Michael A.
Webb, David C.
West, Floyd L.
White, MAJ Sheila
Williamson, CPT Lannes C. II

Additional information about AABC may be found at:
<http://www.almc.army.mil/hsv/index.asp>.

Congratulations to CECOM's Latest Darden School Graduates

The U.S. Army Communications-Electronics Command's (CECOM's) Carmel Costa, Ken Macfarlane and Bob Tiedeman have successfully completed "The Commercial Business Environment – A Primer for Department of Defense Managers." This course, presented by the University of Virginia's Darden Graduate School of Business Administration, Charlottesville, VA, showcases the world of commercial businesses. The course was conducted Nov. 29-Dec. 10, 2004, and additional group activities were held Saturday and Sunday.

The course included instruction, discussion and debate on topics such as economics, business-government relations, decision and risk analysis, business modeling, domestic and global culture, accounting, international finance, marketing, supply chain management, strategic alliances/partnerships and sustainable competitive advantage. The course concluded with a session on ethics, organizational behavior and balancing professional career and personal life.

Army contracting personnel from throughout the acquisition workforce attended the class including DA Headquarters procurement analysts, U.S. Army Aviation and Missile Command contract specialists, U.S. Army Corps of Engineers contracting

officers from Italy and Korea, contracting officers from various U.S. Army Contracting Agency districts and CECOM representatives.

Participation in this high-caliber, thought-provoking program is highly recommended for acquisition professionals who need analytical tools to deal with the Army's industrial base partners. Eighty Continuous Learning Points are awarded upon course completion.

News Briefs

Coalition Military Network Supports Operations Against Insurgents

Stephen Larsen

Just in time to support coalition operations to clear insurgents out of Fallujah, Iraq, and other hotbeds, the U.S. Army completed and fielded the Coalition Military Network (CMN), a new Internet Protocol (IP)-based, network-centric satellite communications system.

CMN provides bandwidth-on-demand services, with high-quality voice capabilities and secure broadband data communications for the Coalition's Multinational Division (MND), which includes U.S., British, Polish, Ukrainian, Korean and Filipino forces.

CMN implementation is part of the Kuwait-Iraq C4 (command, control, communications and computers) Commercialization (KICC) Program, through which the Army is providing enduring communications infrastructure for U.S. and coalition forces.

According to LTC Joseph Schafer, KICC Program Army Project Manager, CMN provides remote coalition bases in Iraq services including secure and nonsecure voice, Nonsecure Internet Protocol Router Network and the Combined Enterprise Regional Information Exchange System, a coalition secret data network.

"CMN extends the Global Information Grid (GIG) to the coalition's remote sites in Iraq," said Schafer. "Our vision is

to strike a balance between the need to deliberately build the GIG at the major base camps and to quickly extend the GIG to more temporary locations.”

John Hildreth, KICC's Project Leader for CMN, said the network gives coalition users at remote sites access to the same quality of communications as at larger, more established locations.

“CMN allows for command and control communications between on-the-ground forces and headquarters,” said Hildreth, “and gives the sites a data and fax capability that didn't exist before.”

TDMA/DAMA Provide Warfighters Bandwidth on Demand

Ron Mikeworth, a CMN Project Coordinator, said “CMN reduces satellite usage by dynamically expanding and contracting bandwidth, based on the user's instantaneous needs, using bandwidth-on-demand technologies such as multifrequency Time Division Multiple Access (TDMA)/Demand Assigned Multiple Access (DAMA).”

“This allows the system to expand and reduce the bandwidth used, based on actual, instantaneous requirements, rather than paying for the wider bandwidth all the time when users only need it part of the time,” said Mikeworth — which could reduce satellite-leasing requirements by up to 60 percent. “The only way to determine exact savings would be to do extensive traffic studies,” said Mikeworth.

At CMN's hub in Baghdad, the Army can keep its fingers on the pulse of the entire CMN, said Jason Blanke, a contractor for DataPath, who helps to keep the hub up and running. “We can monitor, maintain, troubleshoot and turn the 20 remote terminals in the network off and on,” said Blanke.

For voice communications, CMN employs a full-mesh topology. “Think of the network as a wheel,” Blanke said, “with chords across the wheel connected to every other node. Each node in the CMN network can talk directly with every other node going through the satellite, but without having to go through the hub.”

Blanke pointed out that CMN's voice network uses only a single satellite hop, reducing satellite delay by 50 percent. “This means significant improvements in voice quality and secure call reliability for coalition users,” Blanke said.

Jason Blanke of DataPath prepares the pedestal for antenna installation for CMN's hub in Baghdad. (Photo by Pete Cryan.)



Contractors who installed the CMN with Polish Soldiers stand outside the Coalition's MND headquarters in Iraq: Stephen Arthur of DataPath (top row, center); James Fischer of Lockheed Martin (top row, right); Tom Fercz of Signal Solutions (bottom row, left); and Raymund Manaois of Lockheed Martin (bottom row, center). The CMN provides bandwidth-on-demand services, with high-quality voice capabilities and secure broadband data communications for the MND, which includes U.S., British, Polish, Ukrainian, Korean and Filipino forces. (Photo by Pete Cryan.)

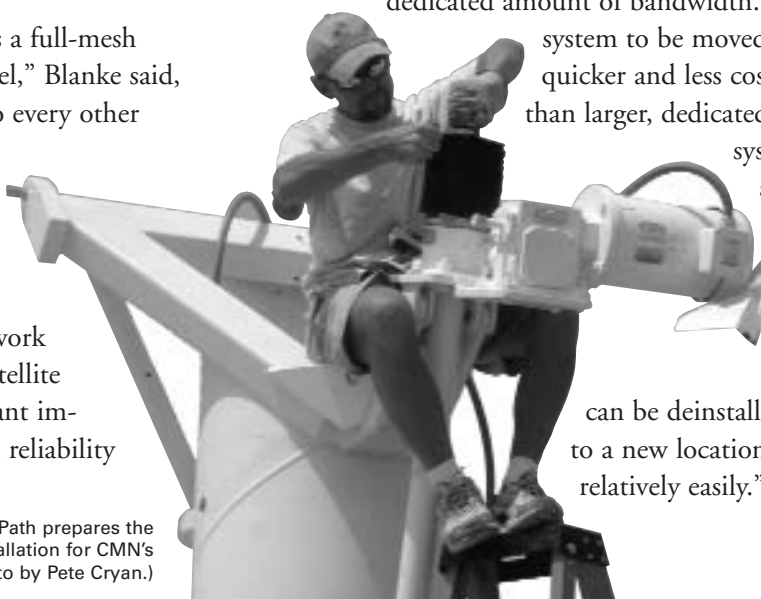
CMN provides hub-spoke local area network (LAN) to wide area network (WAN) access. “For data, all the nodes in CMN are connected to the hub, like spokes in a wheel, through the satellite,” Mikeworth commented. “This allows every node in CMN that may be associated with a LAN to connect to another LAN outside the network through the hub and its connections in the WAN.”

“Because they used Very Small Aperture Terminals for the 20 remote nodes,” Hildreth said, “they were able to achieve economies. This means users don't physically need as large a system for the same capabilities as would be required for a dedicated amount of bandwidth. This allows the

system to be moved in a much quicker and less costly manner than larger, dedicated bandwidth systems with the same capability.

CMN systems, as configured, are not mobile.

However, they can be deinstalled and moved to a new location and reinstalled relatively easily.”





Technicians stand by as the crane lowers the antenna toward the pedestal of CMN's hub in Baghdad. (Photo by Pete Cryan.)

But when you're in Iraq, the words "relatively easily" are well, relative. Ralph Meacham, the KICC Program's Deputy for Advanced Planning, pointed out that the installation team often slept in equipment-shipping containers. "The containers served as a combination shipping trailer, communications and operational trailer and interim crew quarters facility," Meacham said. "We found that at about half our sites the containers ended up being the temporary sleeping quarters for the contract operators until housing became available."

Building the GIG in a War Zone

Mikeworth told how the installation team members — including technicians from the prime CMN contractor, Lockheed Martin, and subcontractors from DataPath and ViaSat — faced dangers as they traveled by truck in convoys through hostile territory to complete installations at remote sites.

"One time, we were delayed because a bridge we were going to cross had been blown up," Mikeworth remarked. "The team ended up being delayed for 2 more days until it was 'safe' to convoy."

To get the equipment to another site, a 10-ton bucket truck was required to lift the antenna onto a rooftop, so the bucket truck became part of the convoy, along with up-armored Humvee gunships.

"Without the assistance of the Soldiers who helped us transport the equipment to sites, our work in Iraq would have been extremely more difficult," Mikeworth noted. He thanked the 711th Signal Battalion, Alabama National

Guard, specifically LT Matt Kelly; the 111th Signal Battalion, South Carolina National Guard, specifically LT Monica McGrath and SGT Robin Goode; and the 3rd Signal Brigade, specifically CPT Clair Crowe-Chaze.

"It was really amazing watching a large bucket truck traveling at convoy speed (about 70 to 80 kilometers per hour) and pulling the required maneuvers as it went under the overpasses in the Red Zone of Baghdad," Mikeworth concluded.

These dangers and challenges set the work of the KICC Program apart from other project management efforts.

"Combat operations continue, insurgency has driven up costs and troop strength has increased rather than decreased," noted Schafer. "But despite it all, we're leveraging IP-based technology — we're fielding comms to meet the requirements of the Transformational Communications Architecture — and we're doing it in a war zone. CMN represents a tremendous capability for GIG extension in the area of responsibility."

Stephen Larsen is the Public Affairs Officer for the Project Manager Defense Communications and Army Transmission Systems at Fort Monmouth, NJ.

Fort Carson First to Up-Armor Vehicles at Installation

PFC Clint Stein



When the 3rd Armored Cavalry Regiment (ACR) deploys to the Middle East this spring, its Soldiers will take some added protection and confidence with them.

Nearly 600 3rd ACR vehicles are being up-armored at Fort Carson, CO, for the regiment's second deployment to the Middle East in support of the global war on terrorism.

Although there have been recent inquiries about up-armored vehicle production, the up-armoring project at Fort Carson was already in effect before SPC Thomas Wilson of the Tennessee National Guard questioned Secretary of Defense Donald Rumsfeld about extra armor during a town hall meeting at Camp Buehring, Kuwait, Dec. 8, 2004.

"The plan for up-armoring the 3rd ACR vehicles was underway at least a week before Rumsfeld made his comments," said Ted Schneider, Fort Carson Logistics Director. "This was a part of the Pentagon's \$4.1 billion plan to up-armor military vehicles.

"It was easy to get the vehicles in production once the contract was approved. We had civilian contractors engaged in regenerating equipment from the regiment's previous tour. We just had to reorganize for the up-armoring project," Schneider continued.

Other Army vehicles have received the added armor in other parts of the world, but Fort Carson is the first military installation in the United States to up-armor vehicles.

"The 3rd ACR is next on the billet to deploy, so it was a high priority to get those vehicles finished before its departure," Schneider said. "We hope to do the same thing for the 3rd Brigade Combat Team before it deploys."

The up-armoring production started Dec. 13, 2004, and has been going full speed ever since. The Directorate of Logistics, the U.S. Army Tank-automotive and Armaments Command (TACOM) and civilian contractors contributed to the Fort Carson up-armoring project.

"We have a crew of 110 to 112 people working 6 days a week, 12 hours a day on this project," Mike Hall, up-armoring Maintenance Manager said. Hall said he hated making crews work such long hours, but circumstances warranted it. "The guys here know how important this is to the Soldiers, so they don't mind the overtime," Hall added.

The amount of effort being put into the project is keeping production on schedule to meet the deadline. "It takes about 56 hours to up-armor a Humvee and a little longer than that to complete a Family of Medium Tactical Vehicles (FMTVs) truck," Hall said. "That's pretty impressive considering all the work that has to be done to each vehicle."

Each vehicle is stripped of its original material and replaced with an armor kit. The TACOM-supplied kits weigh between 1,200 and 5,000 pounds depending on the vehicle type. The armor is made from tempered steel and is low in carbon content, making it stronger and more shatter resistant. The 3-inch thick ballistic windshield and side windows are bulletproof. "I would feel completely safe driving one of these vehicles through small-arms fire," Hall stated.

Although most of the work is outer replacements, there is more to it than that. "Inner changes have to be made, including new suspensions and rewiring. Because of the added armor weight, the original suspension is replaced with newer and stronger leaf springs," he added. Also, an air conditioner is wired and installed into every vehicle. "Besides the armor, this is the next best thing on the vehicle," Hall said. "It helps control the heat inside the vehicle and boosts Soldier morale."

Many 3rd ACR Soldiers have visited the maintenance shop to see some of the finished vehicles. "They feel secure knowing they'll be better protected," Schneider said.

"In addition to the added armor, the best type of protection comes from the Soldiers themselves," stated LTC Richard O'Connor, 3rd ACR, Headquarters and Headquarters Troop Support Commander. "Training gives them the confidence to do what they need to do more safely. The 3rd ACR has done a lot of training to prepare for deployment and the armor adds confidence to what they have learned," O'Connor said.

By January 2005, 396 Humvees, 156 FMTVs and 40 Heavy Equipment Mobile Transports were finished and ready to ship overseas. "That is a little more than 50 percent of the regiment's support vehicles. The rest will be finished in Kuwait," Schneider said.

PFC Clint Stein serves with the Fort Carson Public Affairs Office.

Soldier Battle Lab Testing Future Force

SPC Nikki St. Amant

Fort Benning, GA, agencies began experimenting with new Army force structures Jan. 31, 2005, as part of the transition to the Future Combat Systems (FCS).

Subject matter experts from Fort Knox, KY, and Fort Sill, OK, are participating in the experiments at Fort Benning's Soldier Battle Lab (SBL). "Fort Benning's role in the experiment is to ensure the Army's focus on the Soldier is maintained as structure and missions change," said LTC Everett Johnson, SBL Analysis Division Chief.

"The new units of action and employment will incorporate new technologies, communication needs and capabilities as

well as battle-staff requirements. The effectiveness and impact of higher-level changes have to be analyzed all the way down to individual Soldiers,” Johnson remarked.

The Army’s new way of doing business will let information flow laterally, in real time, through all echelons instead of up and down the chain of command. By using cutting-edge technologies, the new force structure will rapidly communicate and plan and execute missions with the most accurate information at their fingertips.

That information will come from unmanned aerial vehicles, satellites and instantaneous intelligence and situational reports from squad and company elements on the ground.

The first phase of this year’s experiment is focusing on virtual scenarios. Picture it as an online game where all users are looking at a map and watching elements move and react to different scenarios. Company commanders are looking at the same screen as division-level commanders and can discuss tactics and receive guidance as quickly as they can type or speak over a secure connection. Platoon leaders, squad leaders and support elements are included in the information network and can adjust fire accordingly.

The next phase will incorporate more involved testing, with actual armed Soldiers moving through a virtual mission environment.

“All this stuff we are doing will be documented in FCS tasks, which future units will have to perform,” said Tollie Strode, an FCS Doctrine Analyst with the Fort Benning Directorate of Combat Developments (DCD). “The Infantry Center and School will incorporate those tasks into the FCS manuals, which are equivalent to our current field manuals.”

The 1-year-long experiment, dubbed “Omnifusion,” is one phase of testing designed to help establish a fully operational FCS unit by 2014.

Testing last year focused on the brigade-size unit of action and this year’s focus is the division-level unit of employment.

Fort Benning is one element of the total experimental force, which encompasses almost every major Army command. Fort Knox is taking the lead. At Fort Benning, SBL works hand in hand with the DCD and the Combined Arms and Tactics Directorate. The 29th Infantry Regiment’s Experimental Force Company is providing Soldiers as test subjects, along with experts from Fort Sill and Fort Knox.

The depth of this phase of experimentation will progress until it culminates in fall 2005. Experiment staff will collect data on mission effectiveness and lethality and get feedback from the test subjects. DCD will then analyze that information and incorporate its findings into new requirement documents.

Every year, the system will be refined, fine-tuned and tested in a constant drive toward the 2014 goal. “This is a huge undertaking,” said CPT Clint Cox, one of the test participants. “I wouldn’t want to be anywhere else. These Soldiers have a lot to give with their combat experience. They are helping shape the FCS Soldier.”

SPC Nikki St. Amant writes for The Bayonet newspaper at Fort Benning.

Okinawa Communications Reliability Improves Upgraded Power Shed Equipment

Tim Kennedy

Warfighters on Okinawa, Japan, which was battered by 13 typhoons last year, are one step closer to getting an uninterrupted power supply. On Dec. 15, 2004, the island’s new power generation equipment passed acceptance tests at the Caterpillar Integrated Switchgear Organization (ISO) plant in Alpharetta, GA.

The power generation equipment — including quiet, fuel-efficient, 1,000-kilowatt generators; microprocessor-based engine controls; touch screen monitors; embedded diagnostics; and multiple layers of redundancy — was subjected to 18 rigorous tests, including real-world failure scenarios ranging from a single utility failure to shifting the system from a utility grid during an emergency.

“Having a reliable power supply is especially critical in today’s security environment, where force protection missions rely on an uninterrupted flow of electricity,” said Alex Meno, Project Manager with the 58th Signal Battalion, Fort Buckner, Okinawa, where the new power generation equipment will be housed.

“Fort Buckner is one of the most critical facilities in the Pacific Theater,” said Meno, pointing out that the facility supports ongoing missions in Iraq, Afghanistan, Uzbekistan and Kuwait, as well as the 30,000-member joint community on



U.S. Army NETCOM/9th ASC Engineer Randy White (left) and Army Product Manager Defense Wide Transmission Systems (PM DWTS) Product Leader Jorge Blanco witness the successful acceptance testing of new power generation equipment for Okinawa, Japan, at the Caterpillar ISO plant in Alpharetta, GA, on Dec. 15, 2004. (Photo by Tim Kennedy.)

Okinawa. "Our mission is to enable soldiers in foxholes anywhere in the world to communicate with their home stations."

According to Jorge Blanco, Product Leader with the Army's Product Manager Defense Wide Transmission Systems (PM DWTS) — part of the Fort Monmouth-based Project Manager Defense Communications and Army Transmission Systems — a true distributed processing system is being delivered to Fort Buckner.

"This means there is no single point of failure that can bring down the entire system," Blanco explained, adding that PM DWTS' goal was to provide power generation equipment incorporating technology that was both up-to-date and mature. Toward that end, the Army required that the solution employ technology that had been proven for at least 3 years, versus emerging, bleeding-edge technology.

"Given the critical missions supported by the 58th Signal Battalion," Blanco continued, "we needed to have 99.99 percent reliability, and equipment that would only require 5 to 6 minutes of downtime a year for maintenance."

Randy White, the Project's Lead Engineer with the U.S. Army Network Enterprise Technology Command/9th Army Signal Command (NETCOM/9th ASC), which provided \$7.6 million of the \$9 million required for the project, said he is looking forward to the new system's reliability.

"We knew it was time for a new system after we had to ship a 500-pound, refrigerator-sized circuit breaker to California for repairs twice within a few months," said White, pointing

out that the old system was 40 years old and had been previously upgraded piecemeal because of funding problems.

As an engineer, White is impressed by the system's touch screen monitors, which give the operator the ability to "drill down" and virtually view any component.

"These touch screen monitors graphically mimic many of the functions that a power plant operator might encounter with a traditional system," said White. "For example, an engine control switch on the monitor looks, feels and acts like the engine control switches on a traditional system. This will eliminate confusion that might contribute to operator error and will also reduce training time."

Another function of the touch screen monitor is a virtual "enunciator screen," which mimics enunciator lights that indicate an alarm or fault in traditional generator parallel switching gear.

Eaton/Powerware of Raleigh, NC, the prime contractor for the effort, is designing, installing and integrating the system, with ISO providing the generators, transformers and control, distribution and load-switching equipment.



Representatives from the 58th Signal Battalion, PM DWTS, NETCOM/9th ASC, the Okinawa DPW, Eaton/Powerware and the ISO put the power generation equipment for Okinawa through one of 18 rigorous acceptance tests. (Photo by Tim Kennedy.)

“What is good about this project is that we have all parts of the Army working together,” said Jim Leander, Okinawa Department of Public Works (DPW) Chief, “including the customer, DPW and the various elements up and down the channel. I appreciate the efforts and cooperation from everybody in bringing in our contracting partners to make this happen.”

Leander said the next step is to complete the installation before August — the beginning of Okinawa’s annual typhoon season — because, as the entire team points out, warfighters deployed around the world depend on the communications supported by Fort Buckner’s power shed.



Jim Leander, Chief of the Okinawa DPW, tests the power generation equipment’s touch screen monitors, which give the operator the ability to “drill down” and virtually view any component. (Photo by Tim Kennedy.)

“As a public works person, I’m responsible for bringing power to the receptacle in the wall,” said Leander. “But when my sons are in Afghanistan or back in Iraq, this up-graded facility will make them better operators. When they need to communicate on a system supported by us, they really don’t care what I do to provide power. They just want it to stay on.”

Tim Kennedy is President, Strategy Policy Group, an Arlington, VA-based strategic communications company.

ALTESS News

Advanced Collaborative Environment

Ailene Anderson

There has been a lot of discussion on what an Advanced Collaborative Environment (ACE) is. The dictionary defines “collaborate” as “to work together, especially in a joint intellectual effort.” Information technology (IT) is a tool employed to facilitate collaboration. IT allows people and processes at all levels to work together in a joint intellectual effort. This is represented in the acquisition framework triad: Planning, Programming, Budget and Execution; Defense Acquisition System; and Joint Capabilities Integration and Development System.

Imagine working in an environment with access to end items, artifacts, supportive links aligning daily operations and interaction and directly supporting strategic goals and financial objectives for your organization, DOD and the Army.

A technical organizational system-of-systems, ACE integrates people, processes and technology. Its mission is to implement an enterprise business solution for acquisition life-cycle management that facilitates collaboration, intellectual knowledge sharing and process improvement while reducing business costs.

Technical personnel view ACE as commercial-off-the-shelf products for e-mail, Web conferencing, workflow management, standard document templates, Web services, systems federation and artifact visibility. Others see it as a cross-application integration and a way to eliminate legacy systems.

The acquisition community is transforming from a program/project-centric focus to a “system-of-systems” platform. ACE will help the acquisition community become more technologically organized and cost-effective.

Ailene Anderson is the Acquisition, Logistics and Technology Enterprise Systems and Services Assistant Project Manager for ACE, Fort Belvoir, VA.